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Electroanalysis of antioxidants in pharmaceutical dosage forms: State-of-the-art and perspectives

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Abstract

© Springer-Verlag Wien 2015. Abstract Recent developments and future trends in electroanalytical chemistry of antioxidants in pharmaceutical dosage forms are discussed. The advantages of constant-current coulometry and different types of voltammetry in particular rapid response, sensitivity, selectivity, and low detection limits are demonstrated. The special attention is paid to various types of chemically modified electrodes including carbon nanomaterials, nanoparticles of metals, self-organized systems, and their combination. The data presented confirm that electroanalysis can be considered as alternative or additional technique to spectrophotometric and separation methods for determination of antioxidants in pharmaceuticals.

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Keywords

Chemically modified electrodes, Coulometry, Pharmaceutical analysis, Redox reactions, Sensors, Voltammetry